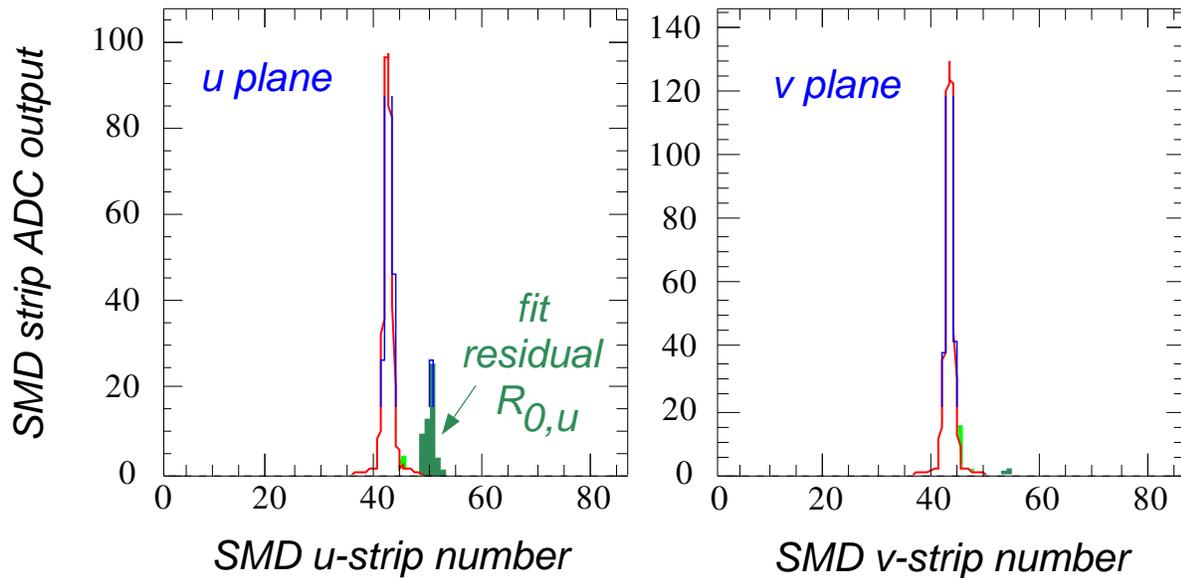
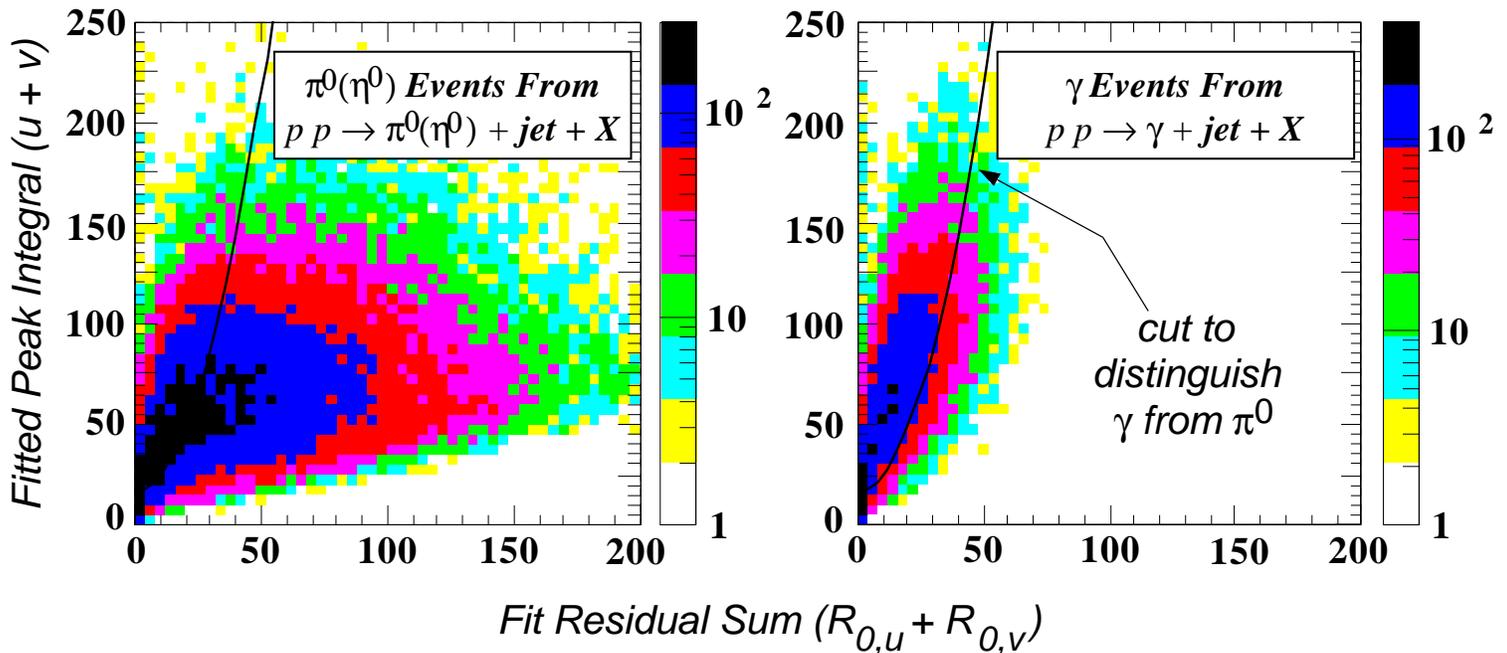


# SMD $\gamma / \pi^0$ Discrimination Algorithm

SMD transverse shower profile for 30 GeV  $\pi^0$  event



- fit transverse SMD profile with peak shape characteristic of average response to single  $\gamma$
- determine peak integral and "worst-side" fit residual for each plane of SMD



$\Rightarrow \approx 80\% \pi^0(\eta^0)$  rejection  $\oplus \approx 80\% \gamma$  retention up to  $E \approx 50$  GeV